



Photoelectric sensors  
MH15, Photoelectric retro-reflective sensor

MHL15-P2238



**Model Name** > [MHL15-P2238](#)  
**Part No.** > [1026134](#)



*Illustration may differ*

**At a glance**

- Long sensing distance up to 5.0 m with PL80A reflector
- Polarizing filter reliably detects shiny object surfaces
- Indicator LED shows active switching output and operating reserve
- Straight or right-angle housing designs available
- Mounting accessories (M18 nuts and snap ring) are included
- IP 69K-tested housing

**Your benefits**

- Shortest M18 body on the market, saving installation space
- Flush mounting via snap ring reduces setup time and prevents obstructions to material flow on conveyor systems
- Polarizing filter prevents false readings on reflective objects, reducing downtime
- Highly visible red light provides simple installation and time-saving alignment to the reflector
- MHL15 is compatible with competitor sensors for easy replacement that saves installation time and costs
- IP 69K-tested housing offers a long service life that withstands harsh environments, reducing maintenance time and costs



**Features**

Sensor/detection principle:	Photoelectric retro-reflective sensor
Housing design (light emission):	Cylindrical, angled
Housing length:	49.3 mm
Thread diameter (housing):	M18 x 1
Optical axis:	radial
Sensing range max.:	0.035 m ... 4.5 m <sup>1)</sup>
Sensing range:	0.035 m ... 2.6 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	LED <sup>3)</sup>
Wave length:	650 nm
Angle of dispersion:	Ca. 1.5 °
Light spot size (distance):	Ø 60 mm (2.6 m)

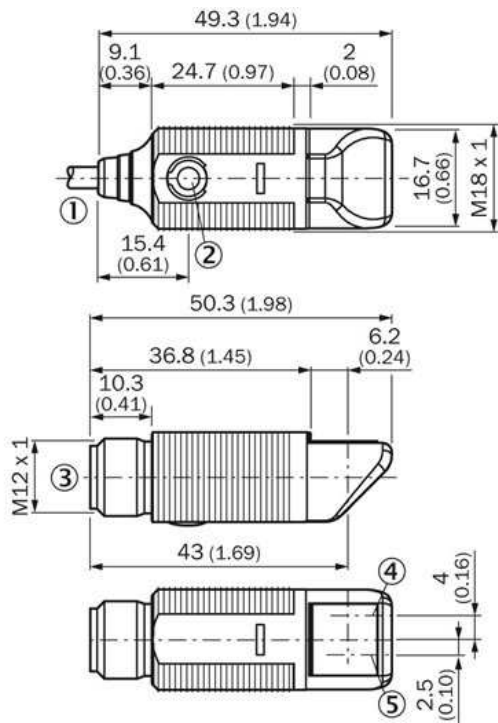
<sup>1) 2)</sup> PL80A <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 <sup>1)</sup>
Ripple:	≤ 5 V <sub>pp</sub> <sup>2)</sup>
Power consumption:	30 <sup>3)</sup>
Output type:	PNP
Switching mode:	Dark switching
Signal voltage PNP HIGH/LOW:	U <sub>v</sub> - (< 2,9 V)/ca. 0 V
Output current I <sub>max</sub> :	100
Response time:	≤ 1.25 ms <sup>4)</sup>
Switching frequency:	400 <sup>5)</sup>
Connection type:	Cable, 3-wire, 2 m <sup>6)</sup>
Cable material:	PVC
Conductor cross-section:	0.14 mm <sup>2</sup>
Cable diameter:	3.7 mm
Circuit protection:::	A, C, D <sup>7) 8) 9)</sup>
Protection class:	III
Weight:	91 g
Polarisation filter:	✓
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67 IP 69K
Ambient operating temperature:	-25 ... 55 °C
Ambient storage temperature:	-25 ... 70 °C
UL File No.:	NRKH.E189383 & NRKH7.E189383

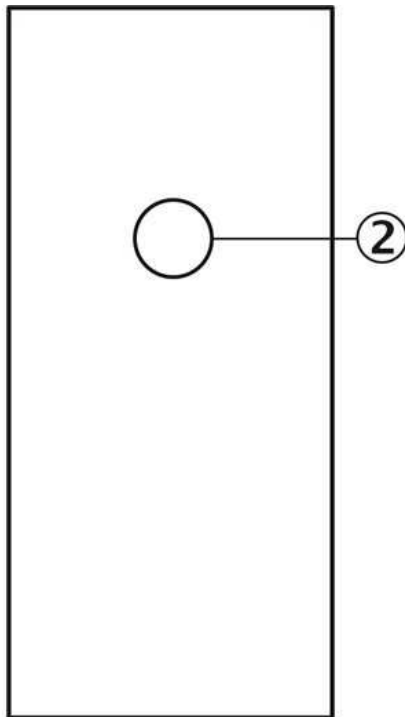
<sup>1)</sup> Limit values <sup>2)</sup> May not exceed or fall short of V<sub>S</sub> tolerances <sup>3)</sup> Without load <sup>4)</sup> Signal transit time with resistive load <sup>5)</sup> With light/dark ratio 1:1 <sup>6)</sup> Do not bend below 0 °C <sup>7)</sup> A = V<sub>S</sub> connections reverse-polarity protected <sup>8)</sup> C = interference suppression <sup>9)</sup> D = outputs overcurrent and short-circuit protected

**Dimensional drawing**



- [1] Connection cable 2 m
- [2] Yellow LED indicator:- lights continuously:light reception> reserve factor 1  
 .5- blinks: light reception < reserve factor 1.5 but > swit

**Adjustments possible**

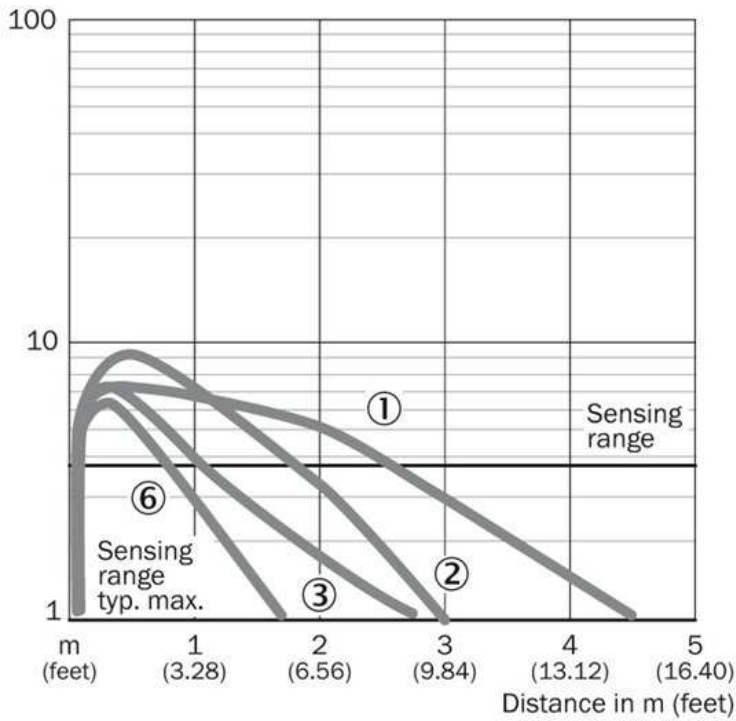


- [2] Yellow LED indicator,-lights continuously: Light reception> reserve factor 1,5-blinks: Light reception > reserve factor 1,5but light reception>switching thres

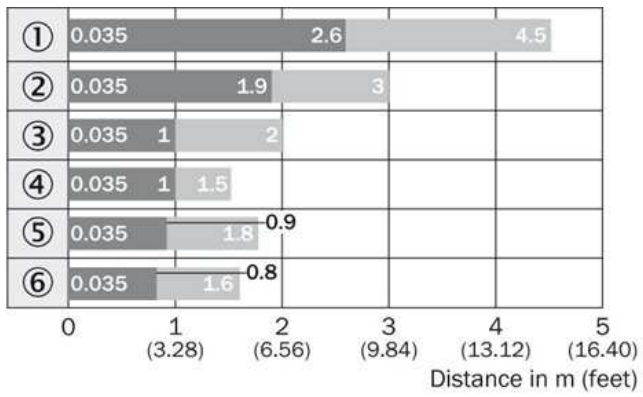
Connection diagram



Characteristic curve



## Sensing range diagram



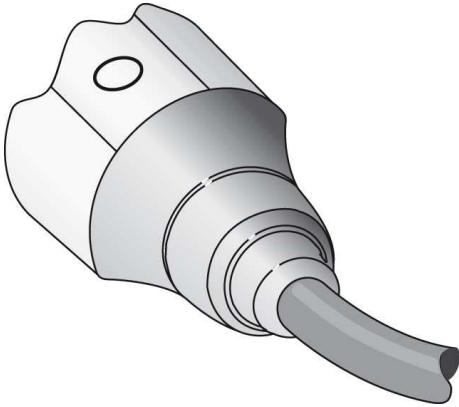
■ Sensing range

■ Sensing range typ. max.

### Reflector type

- ① PL80A
- ② P250
- ③ PL50A/PL40A
- ④ C110
- ⑤ PL30A/PL31A
- ⑥ PL20A

### Connection type



**Australia**

Phone +61 3 9457 0600  
1800 33 48 02 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail marketing@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Česká republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail info@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6881000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 5309 2112  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederland**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail sick@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail sales.gsg@sick.com

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886 2 2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 88 65 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 (800) 325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)